PATENT

Attorney Docket No.: SIGONG-13046

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Yae-Yoon Kim et al.

Application No.: 10/589,102

Filed: October 06, 2007

For THERAPEUTIC USE OF CPG OLIGODEOXYNUCLEOTIDE FOR SKIN DISEASE Group Art Unit: 1832

Examiner, NOBLE, MARCIA STEPHENS

Confirmation No.: 5838

Sir:

- 1, I, Dr. Tae-Yoon Kim, declare the following:
- I am a citizen of the Republic of Korea, and have the following mailing address: Asia Seonsoochon Apt. #8-702, Jameil-dong, Songoa-gu, Seoul 138-220. Republic of Korea;

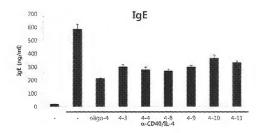
DECLARATION OF DR. Tae-Yoon Kim

- I graduated from the Catholic University of Korea, Medical College with
  M.D. degree in 1980 and Ph.D. degree in 1989;
- 4. Lam a professor of the Department of Dermatology, Catholic University of Korea:
- 5.1 have read and am familiar with the above-identified United States patent application filed April 28, 2006, and 1 am submitting this Declaration in support of that application.
  - 6. I have performed and/or supervised the experiments reported below:

## < Analysis of Immunoglobulin E (IgE) production in B cells >

To evaluate inhibitory effect on tgE synthesis in B cells. B cells were stimulated with CD40 (CD154) in present IL-4 for 5 days. 1 M CpG-ODNs were used for all experiments and ELISA was done with culture supernatants.

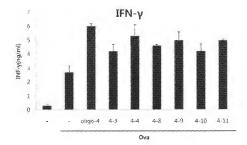
As a result, toE production was reduced by CpG-ODNs treatment.



## <Analysis of Interferon-gamma (INF-y) production in splenocyte>

We investigated effect of CpG-DDNe on IFN-y production. For analysis of IFN-y production, Spleen sells were obtained from DO11.10 mice, which were stimulated with Ovalumin.

The Spieen cells were incubated with or without CpG-ODNs. ELISA assay targeting (FN-y) was parformed 24 h after stimulation.



7. It hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereby.

Date Nov. 1. 2010

Tae-Ygon Kim